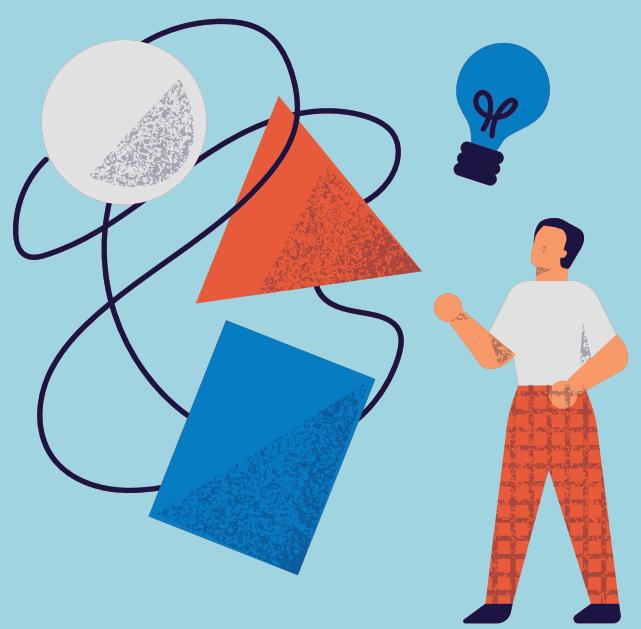


SMART MEDICINE ASSISTANT

By: Ranwah Sadik, Razan Alkahlumi

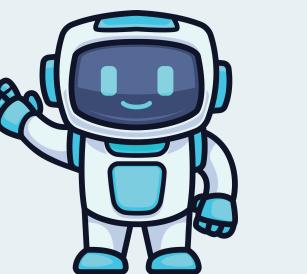


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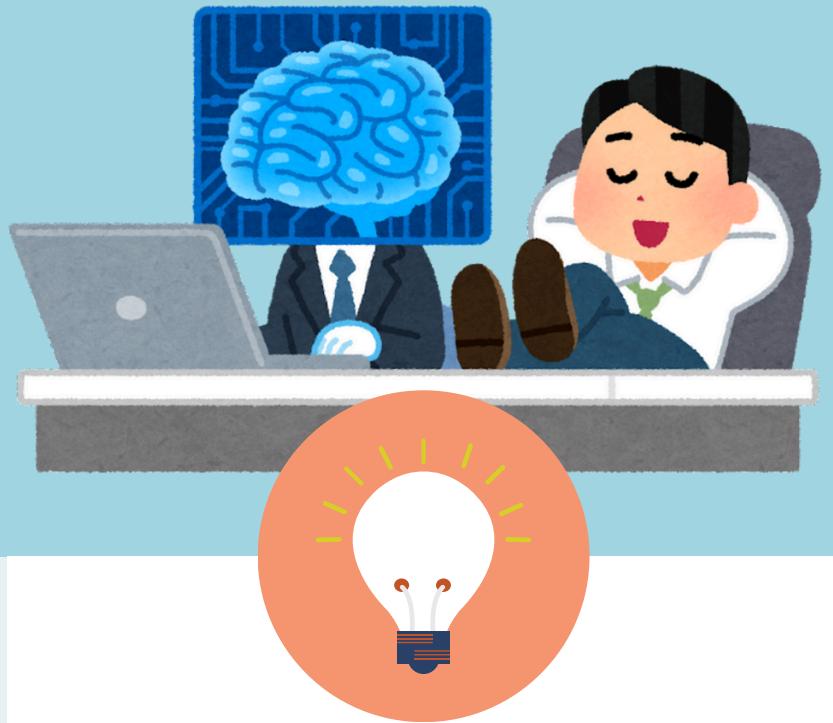
Motivation Behind the Project



Problem

Gap

Goal



Navigating medical information can be overwhelming, **especially for older adults and the visually impaired**. Our project was born from the need to simplify this experience. By combining AI with a user-friendly design, we aim to give people the clarity and confidence to better manage their health.

Motivation Behind the Project

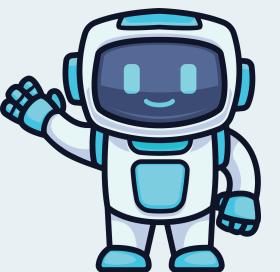


Problem

Many seniors struggle to understand medication instructions and health documents.



Gap



Goal



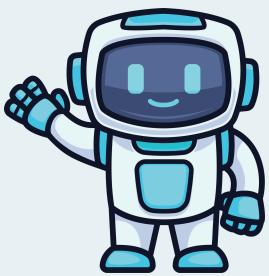
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Many seniors struggle to understand medication instructions and health documents.



Gap

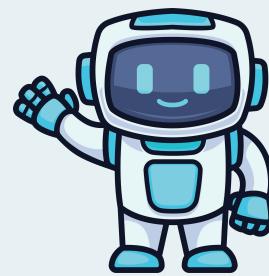
Searching online or reading long PDFs can be confusing or overwhelming.

Goal



Navigating medical information can be overwhelming, **especially for older adults and the visually impaired**. Our project was born from the need to simplify this experience. By combining AI with a user-friendly design, we aim to give people the clarity and confidence to better manage their health.

Motivation Behind the Project



Problem

Many seniors struggle to understand medication instructions and health documents.

Gap

Searching online or reading long PDFs can be confusing or overwhelming.

Goal

Build a friendly, helpful AI assistant that speaks clearly and simplifies medical information.



Navigating medical information can be overwhelming, **especially for older adults and the visually impaired**. Our project was born from the need to simplify this experience. By combining AI with a user-friendly design, we aim to give people the clarity and confidence to better manage their health.

PROJECT OVERVIEW

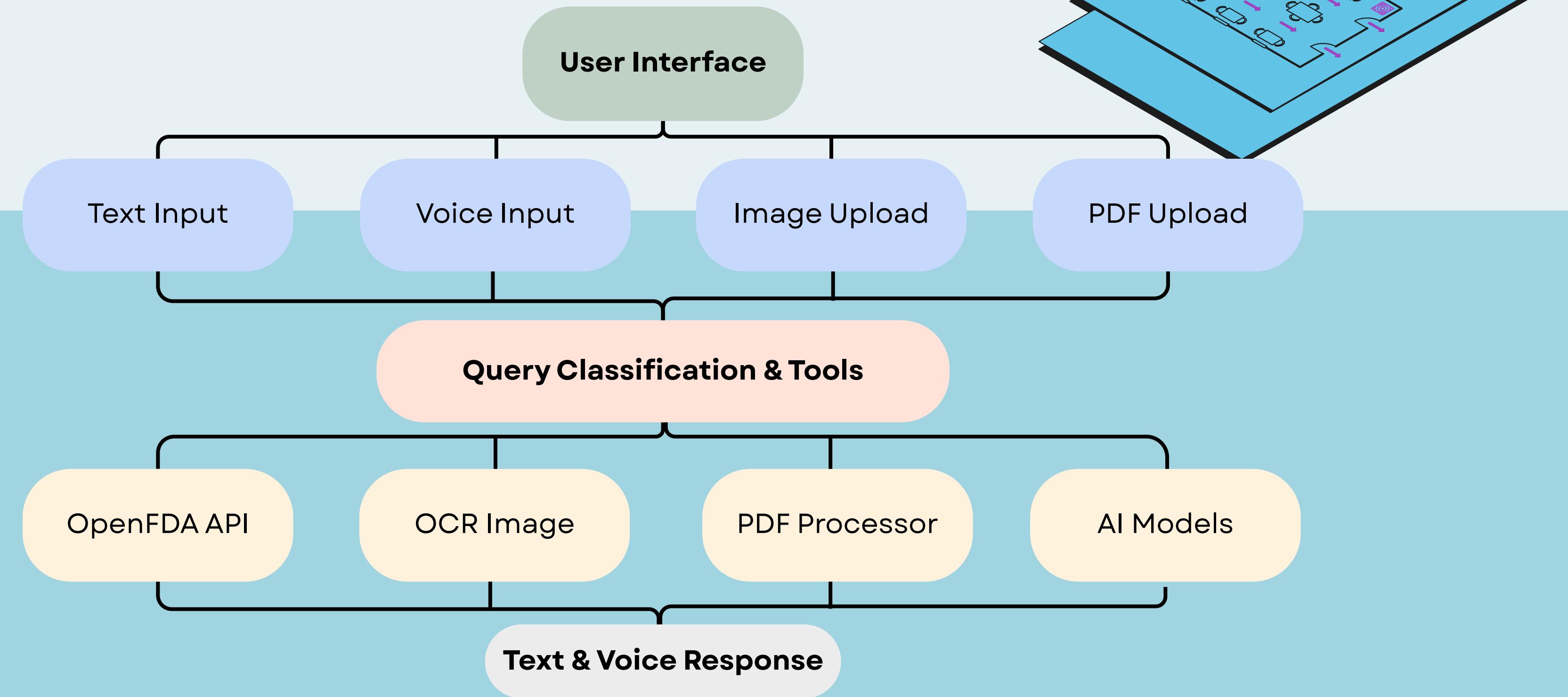
The **Medicine Assistant** is an AI-powered tool (Chatbot) that helps users:

- Get reliable information about medications
- Understand health documents
- Find answers to medical questions
- Access help through multiple convenient methods

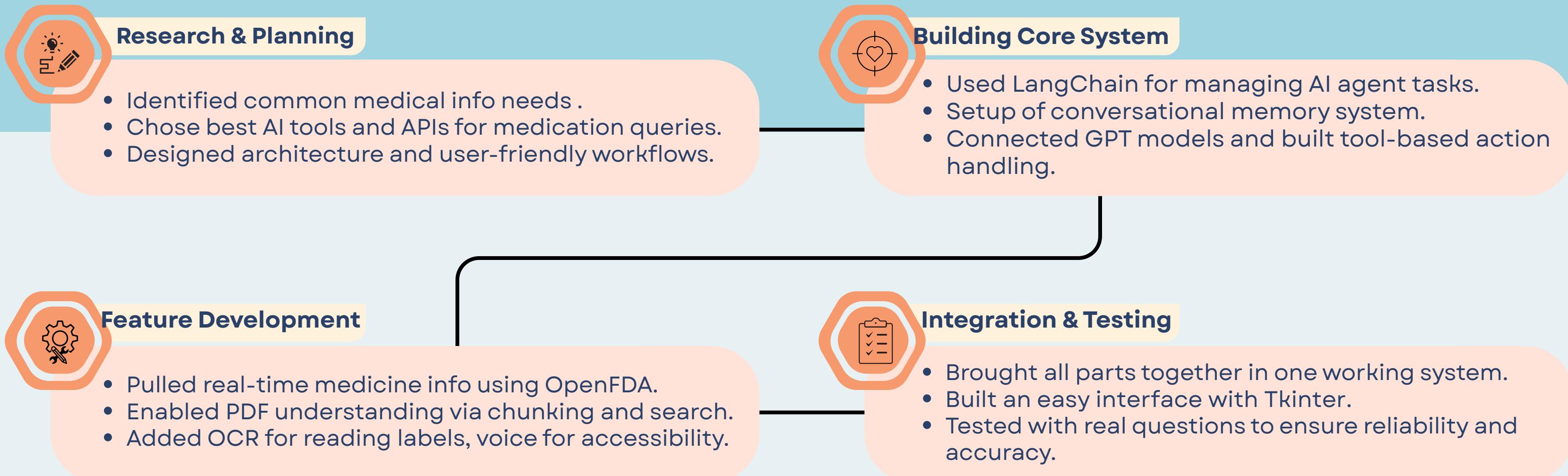
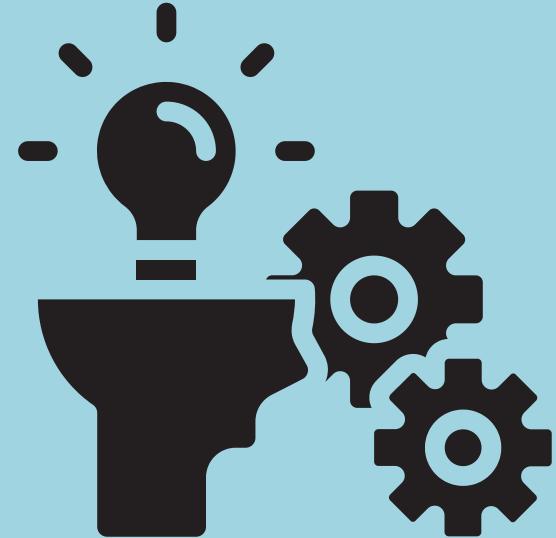
🎯 Focus: Making Medication information accessible to everyone, **especially seniors and visually impaired.**



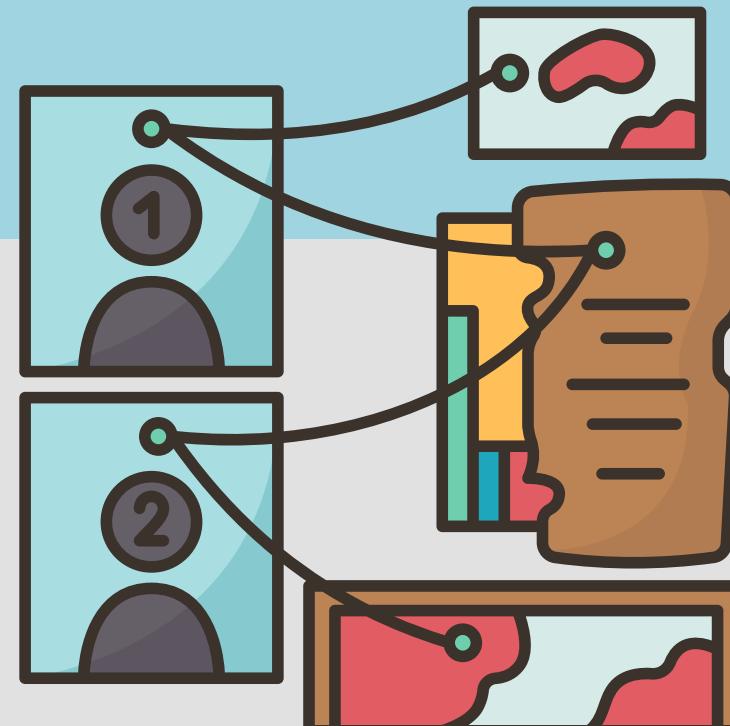
Medicine Assistant Architecture



Development Process



Use Cases



Patient receives prescription and needs information

Interaction: The user uploads an image of the medicine label or enters the drug name manually.

System Response: Delivers verified FDA-approved information on usage, dosage, side effects, and warnings.



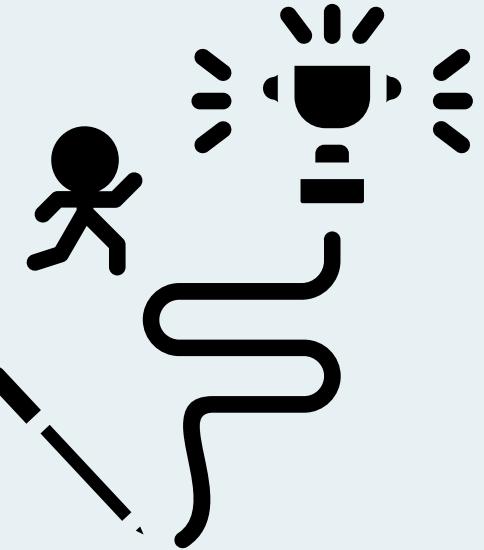
visual impairments or reading difficulties need help understanding medications

Interaction: The user speaks medication-related queries via voice input.

System Response: Responds audibly with detailed, easy-to-understand medical information.



Challenges & Solutions



Reliable Information Sources	Accessibility for Visually Impaired or Elderly	Ambiguity in Source Selection
Integrated with official FDA database and implemented data verification systems	Added voice input/output support, ensuring the system could speak answers and listen to commands	Implemented logic to differentiate queries based on their nature, by information using prompt tagging and session state tracking.

Delivered strong performance on queries with an average cosine similarity of 0.84, reflecting precise comprehension and relevance

RESULTS & ACHIEVEMENTS

AI assistant accurately answers medication-related queries using LLMs and semantic search, with ability to process documents and provide responses

Integrated voice, image, and text to create a smooth and accessible user experience, especially for elderly or visually impaired users



FUTURE IMPROVEMENTS



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Mobile-Friendly Version
Accessible on smartphones and
tablets for everyday convenience.



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Support for Local Languages
Include regional languages to reach a broader audience.



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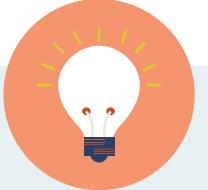


Support for Local Languages
Include regional languages to reach a broader audience.



Medication Schedule & Reminders by
Help users manage prescriptions with clear schedules and timely alerts.

The Medicine Assistant
Your AI Medication
Companion.
Easy to use
Senior-friendly
Reliable information
Multiple interaction methods



THANK YOU! QUESTIONS?

